

Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

REMARKS

Claims 1, 7, 8, 9, 11, 12, 13, 16, 19, 20, 22, 25, 27, 30, 32 and 35 have been amended. Applicants have amended the term "the colour entities" to read "the multiple colour entities" in claims 1, 8, 9, 11, 12, 13, 16, 20, 22, 27 and 32. Applicants have also amended the term "each colour entity" to read "each of the multiple colour entities" in claims 1, 7, 8, 13, 19, 22, 25, 27, 30 and 35.

Claim 1 as previously amended recites in the preamble that the colour management user interface controller is for assisting users "to manage colour settings of multiple colour entities", and in the body "each colour entity", "the colour entities", "to manage colour settings of the colour entities". The above amendments have been made to use a consistent term "multiple colour entities" which is used in previous claim 1. Accordingly, Applicants trust that the above amendments to the claims do not bring any new matter or necessitate any new search by the Examiner.

Applicants respectfully request entry of the above claim amendments.

Turning to the art rejections, the Examiner has rejected claims 1-36 under 35 U.S.C. §102(e), stating that these claims are anticipated by Olson (US Patent No. 6,381,036). Applicants respectfully request reconsideration of the rejection for the reasons set out below.

(1) Claims 1 and 12

The Examiner has compared Olson's teaching with the elements of claims 1 and 12.

Applicants respectfully request reconsideration.

Claim 1 is directed to "a colour management user interface controller for use in a colour management system for assisting users to manage colour settings of multiple colour entities".

Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

As the Examiner has indicated and described in paragraph [0016] of the present Application, "colour entities" are colour spaces and colour devices. Paragraph [0016] and Figure 5 shows examples of colour entities including an import/export colour space, composite printer, monitor, separations printer and scanner. The colour management user interface controller of Claim 1 is used for assisting users to manage colour settings of multiple colour settings.

Olson is directed to determination of colorant levels required by a printer to match the target colour (column 1, lines 42-44). Olson's system allows the user to select a colour to be printed on a printer 16. The system presents to the user several candidate colour patches, and the user selects a colour which best matches a desired colour or target colour. The selection of colour to be printed is not management of colour settings of the printer.

The description of Olson includes the printer 16 and monitor 10, and the CMYK colour space used by the printer 16 and RGB colour space used by the monitor 10. This is because the user performs the colour selection for the printer 16 using the monitor 10. However, the user does not select colour or manage colour settings for the monitor. Olson's system allows the user to select colours for a single colour entity, i.e., printer 16.

Thus, Olson does not disclose any user interface controller for use in a colour management system for assisting users to manage colour settings of multiple colour entities.

Olson discloses in column 9, lines 19-30 prior art colour management systems that translate CMYK space to RGB space, "using device color profiles that represent the color space of the printer and the display". Applicants are not claiming a prior art colour management system that performs translation of colour spaces using device colour profiles. Applicant are claiming a colour management user interface controller that have the recited

Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

elements, as discussed below. Olson also refers to these systems as "well known", and describes a different system that uses a colour space RGBT. The user interface shown in Figure 2 (column 4, lines 53-53) is not a part of the prior art colour management system.

Claim 1 requires a representation controller for presenting to a user representation of each of the multiple colour entities. The Examiner took a position that Color Direction Legend 40 shown in Figure 2 and described in column 5, lines 9-17 of Olson corresponds to the representation controller of claim 1, and that color of Olson is a representation of each colour entity of claim 1.

Color Direction Legend 40 of Olson shows color sets 34, 36 and 38 which are "a miniature version of the main color neighbour patch display 20, 26, 30, but with highly exaggerated colors" (column 5, lines 10-11). Each main color neighbor patch display 20, 26, 30 is a candidate colour set to guess a target colour (column 4, lines 19-21). A target colour is the colour that the user wants to be printed on the printer 16. From the main color neighbor patch display 20, 26, 30, "the user identifies the neighboring color that makes the best color match to the target color" (column 2, line 67 to column 3, line 2). The exaggerated colour sets 34, 36 and 38 of the Colour Direction Legend 40 are provided "to help show the variations in the neighbour colours" (column 5, lines 12-13).

Accordingly, the colour sets 34, 36 and 38 shown in the Color Direction Legend 40 are not a representation of the printer 16, rather they are candidate colours to be printed on the printer 16.

Also, the colour sets 34, 36 and 38 shown in the Color Direction Legend 40 are all related to a single printer 16. Accordingly, the Color Direction Legend 40 does not provide

Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

anything representing each of multiple colour entities which are to be managed, because there is only a single entity of interest.

Claim 1 further requires a relation indicator controller for presenting to the user one or more relation indicators indicating colour relation between the multiple colour entities represented by the representations so as to assist the user to manage colour settings of the multiple colour entities. The Examiner took a position that Colorant Levels 44 shown in Figure 2 and described in column 5, line 65 through column 6, line 9 of Olson correspond to the relation indicator of claim 1.

Olson's Colorant Levels 44 shows "a bar graph from the printer CMYK codes used to make the selected colour. This enables a visual comparison to be made of the toner or ink levels used to generate the colour" (column 6, lines 2-3). Thus, the bar graph is a visual comparison of the ink levels for the printer 16, and it is not a relation indicator indicating colour relation between the printer 16 and the monitor 10 or other colour entities.

Olson's Colorant Levels 44 also shows a slider bar that "provides control of the black component in the CMYK printer codes" and "the scale represents the "T" parameter used to encode the printer colorant in RGBT form" (column 6, lines 5-9). The "T" parameter "loosely represents the "total ink level" that would be used in a four-colour CMYK system" (column 9, lines 32-34). Thus, the slider bar is a control of the black component for the printer 16, and it is also not a relation indicator indicating colour relation between the printer 16 and the monitor 10 or other colour entities.

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Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

Accordingly, all elements shown in Olson's Colorant Levels 44 are related to the single printer 16. Olson's Colorant Levels 44 do not show any colour relation between multiple colour entities.

Therefore, Olson's system does not provide any mechanism that assists the user to manage colour settings of multiple colour entities.

As the single printer is the only a colour entity of interest for the user, there was no need or incentive for Olson to present to the user representation of multiple colour entities, or relation indicators indicating colour relation between multiple colour entities.

It is respectfully submitted that Olson does not disclose or suggest any colour management user interface controller as recited in claim 1.

Claim 12 depends on claim 11 and recites a colour management system having the representation controller and relation indicator controller. As discussed above, Olson does not disclose or suggest such a representation controller and relation indicator controller.

Therefore, Applicants trust that claims 1 and 12 are patentably distinguished over Olson.

(2) Claims 2, 14, 23, 28 and 33

Claims 2, 14, 23, 28 and 33 depend on claims 1, 13, 22, 27 and 31, and recite a function or step to allow the user to select a relation indicator to manage the colour relation between colour entities that correspond to the relation indicator.

As discussed above, Olson's Color Direction Legend 40 shown in Figure 2 and described in column 5, lines 9-25 is not a relation indicator controller. Olson does not disclose

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Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

or suggest any relation indicator. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(3) Claims 3, 15, 24, 29 and 34

Claims 3, 15, 24, 29 and 34 depend on claims 2, 14, 23, 28 and 33, and recite a function or step to change the appearance of a relation indicator when the relation indicator is selected by the user.

Olson discloses in column 4, lines 40-56 that the user identifies from a printed page which of the color samples most closely matches the target color, and based on this choice a new color set is presented. The user can adjust the neighbor "distance". "within a few iterations, a printer-generated color can usually be found to match the target color" (column 4, lines 50-52). This section describes the change of candidate color sets to select a colour matching to the target color. It is not a change of the appearance of a relation indicator.

As discussed above, Olson does not disclose or suggest any relation indicator. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(4) Claims 4 and 16

Claims 4 and 16 depend on claims 2 and 13, and recite that the relation indicators are presented as arrow buttons.

As discussed above, Olson does not disclose or suggest any relation indicator. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(5) Claims 5 and 17

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Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

Claims 5 and 17, depend on claims 2 and 13, and recite that the colour relation indicators which are available for user's selection are presented.

As discussed above, Olson does not disclose or suggest any relation indicator. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(6) Claims 6 and 18

Claims 6 and 18 depend on claims 2 and 13, and recite a function or step to generate, in accordance with the relation indicator selected by the user, colour matching data indicating a colour entity whose colour settings is used for colour matching.

Olson discloses in column 2, lines 64-67 and column 3, lines 1-13 a summary of its process of allowing the user to select a desired colour to be printed. This is selection of a colour for a single printer, and it is not a selection of a relation indicator.

As discussed above, Olson does not disclose or suggest any colour matching between colour entities, or any relation indicator. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(7) Claims 7, 19, 25, 30 and 35

Claims 7, 19, 25, 30 and 35 depend on claims 1, 13, 22, 27 and 31, and recite a function or step to associate the representation of each of the multiple colour entities with a colour profile of the colour entity.

Olson discloses in column 5, lines 51-64 a profile assist checkbox that "causes the color neighbor patches on the screen to simulate how they will print out on paper". This is

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Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

simulation of colors. This is not association of representation of the printer and its colour profile.

As discussed above, Olson does not disclose or suggest any representation of colour entities. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(8) Claims 8 and 20

Claims 8 and 20 depend on claims 7 and 19, and recite the use of a colour profile storage to obtain the colour profile of each of the multiple colour entities.

The profile assist checkbox of Olson described in column 5, lines 51-64 uses color profiles to simulate how the color neighbor patches will print out on paper by the printer. This is not the use of colour profiles for managing multiple colour entities.

As discussed above, Olson does not disclose or suggest colour management of multiple colour entities. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(9) Claim 9

Claims 9 depends on claim 7, and recites that the representation controller has a function to present to the user the colour profile of the multiple colour entities.

The profile assist checkbox of Olson described in column 5, lines 51-64 uses color profiles for the simulation, but it does not present the profile to the user.

As discussed above, Olson does not disclose or suggest any representation controller or colour management of multiple colour entities. Accordingly, Applicants respectfully submit that this claim is patentably distinguished over Olson.

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Docket No. GSH 08-889792
Amendment C under Rule 116

(10) Claims 10, 21, 26, 31 and 36

Claims 10, 21, 26, 31 and 36 depend on claims 9, 20, 25, 30 and 35, and recite presentation of representation of a colour entity in multi levels.

As discussed above, Olson does not disclose or suggest any representation of colour entity. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

(11) Claim 11

Claim 11 recites a colour management system having a user interface controller for presenting to a user colour relation between the multiple colour entities, and a colour settings manager for controlling colour settings of the multiple colour entities. Olson's Color Direction Legend 40 shown in Figure 2 and described in column 5, lines 9-17 is exaggerated candidate color sets, and is not a user interface controller. Colorant Levels 44 shown in Figure 2 and described in column 5, line 65 - column 6, line 9 are a ink level graph and a black component control, and they are not a colour setting manager.

As discussed above, Olson does not disclose or suggest any presentation of relation between multiple colour entities. Accordingly, Applicants respectfully submit that this claim is patentably distinguished over Olson.

(12) Claims 13, 22, 27 and 32

Claims 13, 22, 27 and 32 recite a step or module of presenting to a user colour relation between the multiple colour entities, and controlling colour settings of the multiple colour entities.

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Serial No. 09/965,237
Docket No. GSH 08-889792
Amendment C under Rule 116

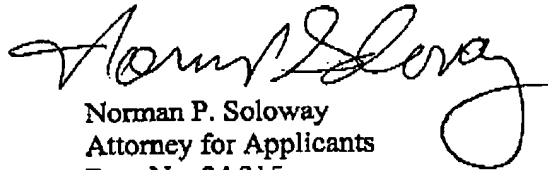
Olson's Color Direction Legend 40 shown in Figure 2 and described in column 5, lines 9-17 is exaggerated candidate color sets, and is not a user interface controller. Colorant Levels 44 shown in Figure 2 and described in column 5, line 65 through column 6, line 9 are an ink level graph and a black component control, and they are not a colour setting manager.

As discussed above, Olson does not disclose or suggest any presentation of relation between multiple colour entities. Accordingly, Applicants respectfully submit that these claims are patentably distinguished over Olson.

Therefore, Applicants trust that claims 1-36 comply with the requirements under 35 U.S.C. 102(e), and that the present invention as claimed in claims 1-36 is patentably distinguished over Olson.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,



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